

CLAIMS

1. A process for producing ceramics comprising dropping a starting ceramics into a low temperature medium, followed by freeze drying and then sintering the same.

2. A process for producing ceramics as claimed in claim 1, wherein the ceramics is calcium phosphate, tricalcium phosphate, calcium dihydrogenphosphate, tetracalcium phosphate, octacalcium phosphate, and a mixture of these calcium phosphates.

3. A sustained drug release product obtained by forming the ceramics obtained according to claim 1 or 2 into a porous product, followed by impregnating the pores with a drug.

4. A sustained drug release product as claimed in claim 3, wherein after the drug is impregnated into the porous ceramics, the impregnated parts are plugged by said ceramics, whereby the sustained release time of the drug is controlled.

5. A process for producing ceramics, wherein a ceramics solution is brought into contact with a low temperature medium.

6. A composite spherical ceramics having a composite layer obtained by dropping a powder of a starting material into a low temperature medium and applying a hydrothermal treatment to the spherical-shape ceramics obtained.

7. A composite spherical-shape ceramics having a composite layer as claimed in claim 6, further having a cement layer obtained by coating the surface of the composite layer with a cement.

8. A process for producing a bone filler, comprising dropping a material capable of using, as a bone filler or other biorepair material, into a low temperature medium and applying a hydrothermal treatment to the spherical-shape ceramics thus obtained under a high temperature and high pressure so as to precipitate

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crystal on the surface, whereby an anchoring effect can be obtained at the time of implantation in a diseased portion.

5 9. A process for producing a bone filler as claimed in claim 8, wherein the surface is coated with a bone cement so as to give the anchoring effect when implanting the filler into a diseased portion.

10 10. A process for producing a bone filler as claimed in claim 9, wherein the coating method of the bone filler comprises instantaneously freezing a cement to be settable by crystal growth, before the crystal growth, followed by freeze drying to thereby homogeneously coat the surface of the bone filler without impairing the effect of the cement.

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